



Approval # 20070004

Environmental & Regulatory Services Division
Bureau of Petroleum Products and Tanks
201 West Washington Avenue
P.O. Box 7837
Madison, WI 53707-7837

Wisconsin COMM 10 Material Approval

Equipment: Estabrook's Ezy Chek Pipeline Leak
Detection System for Line Tightness Testing

Manufacturer: Estabrook's, Inc.
1505 Woodside Ave.
Essexville, MI 48732

Expiration of Approval: December 31, 2011

SCOPE OF EVALUATION

Estabrook's Ezy Chek pipeline leak detection system manufactured by Estabrook's, inc., has been evaluated in accordance with **s. Comm 10.615(2)** of the current edition of the Wisconsin Administrative Flammable and Combustible Liquids Code for use as a line tightness tester. Evaluation was for use with both rigid and flexible lines.

This evaluation summary is condensed to provide the specific installation, application and operation parameters necessary to maintain the subject systems in compliance with the Wisconsin Administrative Code – Comm 10.

DESCRIPTION AND USE

The Estabrook Ezy Chek is a manual system in which the loss of product is read by the operator from a test cylinder having graduations on a sight tube. Test data is recorded manually and calculations necessary to analyze the data are performed by the operator on-site.

The Ezy Chek line leak detection system may be used on systems containing gasoline, diesel, aviation fuel, fuel oil #4, solvents and waste oil.

Estabrook's Ezy Chek line leak detection system uses a preset threshold and a single test to determine whether a pipeline is leaking. The systems declare a leak if the output of the measurement system exceeds a threshold of 0.05 gallon per hour. The systems may be used when trapped vapor is present in the pipeline. Tests of pressurized lines are conducted at 150% of the operating pressure and tests of suction lines are conducted at 7 to 13 psi.

There are no acceptable deviations to the test protocol.

TESTS AND RESULTS

The performance of the Ezy Chek pipeline leak detection systems was determined by Ken Wilcox Associates, Inc., using the EPA protocol for evaluation of pipeline leak detection systems. When used as a line tightness test, the systems are capable of detecting a 0.1 gallon per hour leak at 50 psi with a P_{FA} of 0 percent and a P_D of 100 percent.

The EPA test procedure used addressed only the issue of the methods ability to detect leaks and not safety hazards.

LIMITATIONS / CONDITIONS OF APPROVAL

- The Estabrook Ezy Chek line leak detection system is approved for use on pipeline systems for underground storage tank facilities that contain petroleum or other chemical products. It is approved for use on both rigid and flexible piping.
- The operating instructions and test procedures specified by Estabrooks, Inc., shall be used to conduct all tests.
- Line tester operation shall be verified annually, and calibrated in accordance with manufacturer's instructions if necessary.
- The manufacturer shall submit for a revision to this Wisconsin Material Approval application if any of the functional performance capabilities of this equipment are revised. This would include, but not be limited to changes in software, hardware, or methodology.
- **Mechanical line leak detector shall be removed or manually isolated from the pipeline for the duration of the test, or if testing is to be conducted with mechanical line leak detector in place, check valve in pump must be manually closed.**

- Critical performance parameters for the Estabrook EZY Chek Line Leak Detection System:

Rigid Piping:

Parameter	Value
Test Line Pressure	- 150% of normal operating pressure - 7 to 13 psi for suction systems
Minimum waiting period between last product dispensing and start of data collection	None
Minimum time for test ¹	30 minutes
Total maximum allowable volume of product in any rigid test pipeline	426 gallons or less

1: Data is collected every 15 minutes until there are three consecutive readings with no change noted; the first reading is taken at zero time. Actual test time will depend on line size and temperature conditions at the site.

Flexible Piping:

Parameter	Value
Test Line Pressure	- 150% of normal operating pressure
Minimum waiting period between last product dispensing and start of data collection	None
Minimum time for test ¹	30 minutes
Total maximum allowable volume of product in any flexible test pipeline	101 gallons or less

1: Data is collected every 15 minutes until there are three consecutive readings with no change noted; the first reading is taken at zero time. Actual test time will depend on line size and temperature conditions at the site. Data collected during the third-party testing evaluation suggests the actual test time for a 3-inch line is 2 hours.

This approval will be valid through December 31, 2011, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The Wisconsin Material Approval Number must be provided when plans that include this product are submitted for review.

DISCLAIMER

The Department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement unless specified in this document.

Effective Date: January 1, 2008

Reviewed by: _____
Greg Bareta, P. E.
Engineering Consultant
Bureau of Petroleum Products and Tanks

Approved by: _____ Date: _____